

REMARKS

Claims 1-20 are all the claims pending in the application. Claims 2, 3, 5, 9, 10, 16 and 17 stand rejected upon informalities. Claims 1-20 stand rejected on prior art grounds. Applicants respectfully traverse these objections/rejections based on the following discussion.

I. The 35 U.S.C. §112, Second Paragraph, Rejection

Claims 2, 3, 5, 9, 10, 16 and 17 stand rejected under 35 U.S.C. §112, second paragraph. Claims 2, 9, and 16 have been amended as suggested in the Office Action to overcome a rejection of claims 2, 3, 9, 10, 16, and 17. Claim 5 has been amended to more clearly define that, with the invention, manufacturing tools can begin to manufacture subassemblies even before the overall design of the product is completed, which is one of the many novel features of the invention. Claim 5 further limits claim 4 by including additional elements such as the actual "manufacturing tool." In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

II. The Prior Art Rejections

Claims 1-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Van Huben et al. Claims 2, 3, 9, 10, 16 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Van Huben and further in view of Beasley et al. Claims 7, 14 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Van Huben and further in view of Rossides. Claims 4, 5, 11, 12, 18 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Van Huben and further in view of Ferriter et al. Applicants respectfully traverse these rejections based on the following discussion.

A. The Rejection Based on Van Huben et al.

Applicants respectfully traverse this rejection because neither Van Huben, nor any of the remaining applied prior art references, teach or suggest the claimed feature of using a manufacturing planning engine to allocate capacity for planned products. To the contrary, the most that the applied prior art references teach relates to the management of part numbers after the design process has been completed and the manufacturing process has begun. This is different than the claimed invention which comprises a system and method of "reserving manufacturing capacity." In other words, the claimed invention is utilized in a manufacturing capacity planning environment, which is quite different than the actual post-planning manufacturing environment. Therefore, the method claims define "obtaining a block of part numbers from unallocated part numbers in a product manager tool so as to allocate manufacturing capacity for said customer deliverable order" and the system claims define the ability to "obtain a block of part numbers from unallocated part numbers so as to allocate manufacturing capacity for said customer deliverable order." The claims use the language "allocate manufacturing capacity" to specifically define that the invention operates within the realm of manufacturing planning, as opposed to the realm of manufacturing production. As explained in greater detail below, the applied prior art of record does not teach or suggest the invention because the applied prior art of record is limited to the realm of manufacturing production and does not teach or suggest the inventive aspects of manufacturing planning.

More specifically, Van Huben describes a sophisticated method and system that creates a bill of materials that is used by the manufacturing tools in the actual process that manufactures a product. In its most simplistic terms, Van Huben can be analogized as producing a list of part numbers that need to be drawn from inventory (or manufactured) so that a specific product can be assembled. To the contrary, the invention is utilized in order to determine whether a specific manufacturing facility has available inventory of (or ability to manufacture) the various part numbers and the capacity to perform the assembly process. While this analogy is an oversimplification, it helps distinguish the claimed invention from the prior art of record. The key

point to be understood is that the prior art of record revolves around steps that are taken during manufacturing (including manufacturing optimization), while the invention comprises a planning tool that is used to allocate manufacturing capacity for planned products.

For example, the Office Action refers to Section 1.15 (beginning in column 27) of Van Huben as teaching the ability to supply a block of part numbers. However, this section of Van Huben describes the classical manufacturing process whereby lists of part numbers (bill of materials) are created once the design of a various sub-component is completed to provide the manufacturing facility with a specific "recipe" of part numbers and instructions to manufacture the sub-component. In addition, Van Huben contains extensive explanation as to how to optimize the actual manufacturing process given various parameters. However, the type of bill of materials being discussed in Van Huben is simply utilized to provide optimized instructions to the manufacturing facility to allow the sub-component to be manufactured in the most efficient manner possible. Additional bills of material will be provided regarding other sub-components as well as the instructions for the combination of the various sub-components into the final product. Van Huben does not teach or suggest obtaining a block of part numbers from unallocated part numbers in a product manager tool so as to "allocate manufacturing capacity" for the customer deliverable order, as defined by Applicants' independent claims.

Van Huben describes a way of using BOM (bill of material control) to manage development and uses a work flow engine to handle. The discussion includes mechanisms of BOM structure and provides for development in many places. This process pertains to the control of development process, and to how part number are managed after the part number is released (replaced with follow on PNs). This type of development process is not linked to any customer engagement or to any manufacturing capacity planning or reserving of capacity.

Thus, as shown above, Van Huben only relates to the realm of actual manufacturing production and utilizes bills of materials (and associated part numbers) in order to provide manufacturing instructions and to optimize the manufacturing process. To the contrary, the claimed invention obtains a block of part numbers from unallocated part numbers in a product manager tool so as to "allocate manufacturing capacity" for the customer deliverable order.

Thus, Van Huben does not teach or suggest a method of "obtaining a block of part numbers from unallocated part numbers in a product manager tool so as to allocate manufacturing capacity for said customer deliverable order" (independent claims 8 and 15) or a system that has the ability to "obtain a block of part numbers from unallocated part numbers so as to allocate manufacturing capacity for said customer deliverable order" (independent claim 1). Therefore, it is Applicants position that independent claims 1, 8, and 15 are not anticipated by Van Huben and are patentable. Dependent claims 2-7, 9-14, and 16-20 are similarly patentable not only because they depend from a patentable independent claim, but also because of the additional features of the invention they define. In view the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

B. The Rejection Based on Van Huben and further in view of Beasley et al.

With respect to the rejection of dependent claims 2, 3, 9, 10, 16, and 17, the Office Action admits that Van Huben does not show a tool that changes manufacturing capacity or a customer engagement tool used to forecast cost and delivery of a product, and the Office Action makes reference to Beasley as showing such features. However, it is Applicants position that the combination of Van Huben and Beasley still does not teach the features defined by Applicants' independent claims and, therefore, dependent claims 2, 3, 9, 10, 16, and 17 are patentable simply because they depend from patentable independent claims. In addition, it is Applicants position that the combination of Van Huben and Beasley does not teach or suggest the features defined by dependent claims 2, 3, 9, 10, 16, and 17.

More specifically, Beasley describes a floor control system that uses BOM structure to set up and run a line (see Abstract). As was discussed above with respect to Van Huben, Beasley is not associated with the realm of allocating manufacturing capacity, but instead is concerned with optimizing the actual manufacturing process itself. Therefore, it is Applicants position that both Van Huben and Beasley are fundamentally unrelated to the invention and no combination of the two references would teach or suggest the invention defined by the independent claims, much

less the features defined by the dependent claims.

Beasley does not provide a way to reserve capacity or change the capacity reservation based on a forecast of a part number, and Beasley does not provide a way to use BOM subassemblies to reserve capacity for items still in development. Beasley does not provide a way for a customer's requirements to be held in BOM and then used to forecast capacity as the customer defined requirement changes.

The claims use the language "allocate manufacturing capacity" to specifically define that the invention operates within the realm of manufacturing planning, as opposed to the realm of manufacturing production. As explained in greater detail above, the applied prior art of record does not teach or suggest the invention because the applied prior art of record is limited to the realm of manufacturing production and does not teach or suggest the inventive aspects of manufacturing planning.

Thus, as shown above, Van Huben and Beasley only relate to the realm of actual manufacturing production and utilize bills of materials (and associated part numbers) in order to provide manufacturing instructions and to optimize the manufacturing process. To the contrary, the claimed invention obtains a block of part numbers from unallocated part numbers in a product manager tool so as to "allocate manufacturing capacity" for the customer deliverable order. Thus, the proposed combination of Van Huben and Beasley does not teach or suggest a method of "obtaining a block of part numbers from unallocated part numbers in a product manager tool so as to allocate manufacturing capacity for said customer deliverable order" (independent claims 8 and 15) or a system that has the ability to "obtain a block of part numbers from unallocated part numbers so as to allocate manufacturing capacity for said customer deliverable order" (independent claim 1). Therefore, it is Applicants position that independent claims 1, 8, and 15 are patentable over the proposed combination of Van Huben and Beasley. Dependent claims 2, 3, 9, 10, 16, and 17 are similarly patentable not only because they depend from a patentable independent claim, but also because of the additional features of the invention they define. In view the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

C. The Rejection Based on Van Huben and further in view of Rossides

With respect to the rejection of dependent claims 7, 14, and 20, the Office Action admits that Van Huben does not show an automatic detection tool for expired part numbers, and the Office Action makes reference to Rossides as showing such a feature. However, it is Applicants position that the combination of Van Huben and Rossides still does not teach the features defined by Applicants' independent claims and, therefore, dependent claims 7, 14, and 20 are patentable simply because they depend from patentable independent claims. In addition, it is Applicants position that the combination of Van Huben and Rossides does not teach or suggest the features defined by dependent claims 7, 14, and 20.

More specifically, Rossides describes a system for registering charges and royalties to users of a database (see Abstract). As was discussed above with respect to Van Huben, Rossides is not associated with the realm of allocating manufacturing capacity, but instead is concerned with registering charges and royalties to users of a database. Therefore, it is Applicants position that both Van Huben and Rossides are fundamentally unrelated to the invention and no combination of the two references would teach or suggest the invention defined by the independent claims, much less the features defined by the dependent claims.

Rossides does not provide a way to add or delete part numbers from a relational database tool within a system that allocates manufacturing capacity. The claims use the language "allocate manufacturing capacity" to specifically define that the invention operates within the realm of manufacturing planning, as opposed to the realm of manufacturing production. As explained in greater detail above, the applied prior art of record does not teach or suggest the invention because the applied prior art of record is limited to the realm of manufacturing production (and/or database management) and does not teach or suggest the inventive aspects of manufacturing planning.

Thus, as shown above, Van Huben and Rossides only relate to the realm of actual manufacturing production (and/or database management) and utilize bills of materials (and

associated part numbers) in order to provide manufacturing instructions and to optimize the manufacturing process. To the contrary, the claimed invention obtains a block of part numbers from unallocated part numbers in a product manager tool so as to "allocate manufacturing capacity" for the customer deliverable order. Thus, the proposed combination of Van Huben and Rossides does not teach or suggest a method of "obtaining a block of part numbers from unallocated part numbers in a product manager tool so as to allocate manufacturing capacity for said customer deliverable order" (independent claims 8 and 15) or a system that has the ability to "obtain a block of part numbers from unallocated part numbers so as to allocate manufacturing capacity for said customer deliverable order" (independent claim 1). Therefore, it is Applicants position that independent claims 1, 8, and 15 are patentable over the proposed combination of Van Huben and Rossides. Dependent claims 7, 14, and 20 are similarly patentable not only because they depend from a patentable independent claim, but also because of the additional features of the invention defined. In view the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

D. The Rejection Based on Van Huben and further in view of Ferriter et al.

With respect to the rejection of dependent claims 4, 5, 11, 12, 18, and 19, the Office Action admits that Van Huben does not show the bill of materials being modified and adapted as designing of the product progresses or the manufacturing of sub-components beginning before the design is completed, and the Office Action makes reference to Ferriter as showing such features. However, it is Applicants position that the combination of Van Huben and Ferriter still does not teach the features defined by Applicants' independent claims and, therefore, dependent claims 4, 5, 11, 12, 18, and 19 are patentable simply because they depend from patentable independent claims. In addition, it is Applicants position that the combination of Van Huben and Ferriter does not teach or suggest the features defined by dependent claims 4, 5, 11, 12, 18, and 19.

More specifically, Ferriter uses a tree structure to establish a set of part numbers (see Abstract). As was discussed above with respect to Van Huben, Ferriter it is not associated with the realm of allocating manufacturing capacity, but instead is concerned with optimizing the actual manufacturing process itself. Therefore, it is Applicants position that both Van Huben and Ferriter are fundamentally unrelated to the invention and no combination of the two references would teach or suggest the invention defined by the independent claims, much less the features defined by the dependent claims.

Ferriter uses a tree structure to establish a set of part numbers. Ferriter describes a standalone process that then could be used for other purposes. The claimed invention does not include limitations directed to a tree structure, or uses of such a structure to link to manufacturing planning and other processes. The contrary, the claimed invention defines using input from customer engagement to describe to the development and manufacturing community what the BOM needs to contain when it is complete.

The claims use the language "allocate manufacturing capacity" to specifically define that the invention operates within the realm of manufacturing planning, as opposed to the realm of manufacturing production. As explained in greater detail above, the applied prior art of record does not teach or suggest the invention because the applied prior art of record is limited to the realm of manufacturing production and does not teach or suggest the inventive aspects of manufacturing planning.

Thus, as shown above, Van Huben and Ferriter only relate to the realm of actual manufacturing production and utilize bills of materials (and associated part numbers) in order to provide manufacturing instructions and to optimize the manufacturing process. To the contrary, the claimed invention obtains a block of part numbers from unallocated part numbers in a product manager tool so as to "allocate manufacturing capacity" for the customer deliverable order. Thus, the proposed combination of Van Huben and Ferriter does not teach or suggest a method of "obtaining a block of part numbers from unallocated part numbers in a product manager tool so as to allocate manufacturing capacity for said customer deliverable order" (independent claims 8 and 15) or a system that has the ability to "obtain a block of part numbers

from unallocated part numbers so as to allocate manufacturing capacity for said customer deliverable order" (independent claim 1). Therefore, it is Applicants position that independent claims 1, 8, and 15 are patentable over the proposed combination of Van Huben and Ferriter. Dependent claims 4, 5, 11, 12, 18, and 19 are similarly patentable not only because they depend from a patentable independent claim, but also because of the additional features of the invention they define. In view the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. Formal Matters and Conclusion

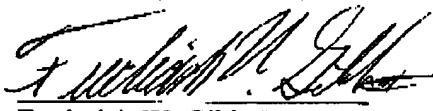
In view of the foregoing, Applicants submit that claims 1-20, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0456.

Respectfully submitted,

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Frederick W. Gibb, III
Reg. No. 37,629

McGinn & Gibb, P.C.
2568-A Riva Road
Suite 304
Annapolis, MD 21401
301-261-8071
Customer Number: 29154